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ABSTRACT

Primary and secondary data sources confirm that Australia is trapped in a low-skills/low-quality cycle. Among the factors that have contributed to this cycle are the following: the relatively small average size and low technology base of Australian firms and the relatively short-term planning horizon and underperformance of many Australian enterprises (compared with the planning and performance of their counterparts in the United States and New Zealand). The theory of a low skills equilibrium, which states that all major stakeholders in skill formation contribute to maintaining the low skills equilibrium, provides a broader-based explanation for Australia's problems regarding worker skills and quality. Five key stakeholder groups influence the nature of the demand for quantity and quality of skills: enterprises; groups of enterprises; the government; employer associations; and individuals and training providers. Specific measures that each stakeholder group can take to move Australia into a high-skills cycle have been identified. Unfortunately, because of Australia's continuing high levels of unemployment and the poor performance of Australia's other economic sectors, many Australian employers and the Australian government will likely remain under pressure to continue following an ad hoc, low-skill/low-quality approach to forming intermediate skills in Australia's economy. (Contains 51 references.) (MN)

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CENTRE FOR THE ECONOMICS OF EDUCATION AND TRAINING

IS AUSTRALIA LOCKED INTO A LOW SKILLS/LOW QUALITY CYCLE?

Richard Curtain
Curtain Consulting
October 1996

WORKING PAPER NO. 10

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Is Australia locked into a low skills/low quality cycle?

Executive summary

The paper presents a range of different forms of evidence to show that Australia is trapped in a low skills/low quality cycle. The paper summarises evidence from primary and secondary data sources of deficiencies in Australia's skill formation arrangements and offers explanations at various levels.

Key factors helping to explain the tendency to produce low skills are the small average size and low technology base of Australian firms compared with the major industrialised economies. The short term planning horizon of many enterprises and their under performance compared with the US and New Zealand economies are other factors.

However, a more broadly based explanation is provided by the concept of a low skills equilibrium, first applied to the UK economy by Finegold and Soskice (1988). This theory holds that all the major stakeholders in skill formation each contribute to maintaining the low skills equilibrium.

Part III proposes a range of reforms for five major stakeholders: enterprises, groups of enterprises, government, employer associations, individuals and training providers.

The paper concludes that the option of pursuing a high skill strategy in Australia is likely to be limited to a relatively small number of successful enterprises in the export sector. Continuing high levels of unemployment and the poor performance of other sectors of the economy will maintain pressure on many employers and government to continue to follow an ad hoc, low skill/low quality approach to the formation of intermediate skills in the Australian economy.

Introduction 3

Part 1 The Evidence Of Low Level Intermediate Skills 5

1.1 Deficiencies in entry level training
1.1.1 Narrow focus of on-the-job training for apprentices & trainees
1.1.2 Industrial relations constraints on entry level training
1.2 Deficiencies in enterprise skill formation: survey evidence
1.2.1 Manufacturing firms in Melbourne
1.2.2 National survey of enterprises approaches to skill formation
1.2.3 A survey of Australia's largest firms on employer-sponsored training
1.2.4 Skill formation in small, high tech enterprises
1.3 Other national survey data on enterprises' limited approach to training
1.4 Lack of demand for high level intermediate skills
1.5 Summary of the evidence

Part II Factors Explaining The Low Demand For High Quality, Intermediate Skills 18

2.1 Small enterprises, low skills and low propensity to train
2.2 More small enterprises in australia than major industrialised economies
2.3 Australia's low technology and low skill economy
2.4 Enterprise short-time planning horizons
2.5 Poor relative performance of australian enterprises
2.6 Deficiencies in how the apprenticeship system in australia operates
2.7 Trapped in a low skills/low quality cycle

Part III Policy Response: Reforms Needed To Move Into A High Skills Cycle 25

3.1 Enterprise changes to improve skills formation
3.1.1 Fostering learning networks
3.2 The role of government
3.3 The role of employer associations
3.4 Individuals and skill formation
3.5 Comprehensive reform of apprenticeship training
3.6 Training providers

Part IV Conclusion 38

References 41

Introduction *

Porter (1990) in his study *The Competitive Advantage of Nations* shows how the capacity of an economy to invest and innovate depends on a range of key factors. These include the presence of specialised skills, technology and infrastructure; sophisticated and demanding local customers; capable local suppliers; competitive local companies in closely related industries; and a local environment that encourages vigorous competition. Australia's recent and deepening exposure to the international economy has created a need to reappraise many of its institutional arrangements affecting the performance of the economy. This applies particularly to the mechanisms for forming workforce skills.

This paper raises concerns about the capacity of the Australian economy to develop specialised, intermediate skills to operate successfully in the world economy. These concerns persist despite the reforms adopted under the Labor Government's National Training Reform Agenda and those proposed by the Coalition Government under the Modern Australian Apprenticeship and Traineeship System. The focus of this paper is on intermediate skills, generally defined as those skills above routine, operational skills but below professional ones (Ryan 1991:2).

The basis for the author's critical perspective on Australian practices is a close reading of comparative data on skill formation arrangements in the major industrialised countries (Curtain 1994a). This critical awareness of the deficiency of arrangements in Australia is particularly shaped by the author's first hand investigation of skill formation practices in Japan (Curtain, Boyles and Matsushige 1995).

Evidence of the deficiencies in Australian skill formation practices is presented in Part 1. The evidence derives from analyses by the author and colleagues based on primary data collection. These data sources consist of recent case study research on key competencies in the on-the-job training component of entry-level training and three surveys of enterprise approaches to training. Also discussed are data from the Employer Training Practices Survey of the Australian Bureau of Statistics.

Data are also presented on the low demand for high quality, intermediate skills in the Australian economy and the factors likely to continue this low level of demand in the future. These include the growth in small business, self-employment and part-time casual employment with low skill levels. Also important are continuing high levels of unemployment and increases in low income earners.

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* Comments from Gerald Burke, Fran Ferrier and Chandra Shah are gratefully acknowledged

Part III examines the factors that help to explain the low skills/low quality cycle in which Australia appears to be trapped. These are: the limitations of the apprenticeship arrangement as the basis for ongoing skills training; enterprise-specific factors such as the small size of Australian enterprises compared with the major industrialised economies and the attitudes of management and employees; the low-technology bias of Australian manufacturing compared with the major industrialised countries; and the factors beyond enterprises that limit the demand for high skill levels. The latter include the effect of short term planning horizons engendered by the financial system and the three year electoral cycle of governments together with union strategies to counter high levels of unemployment and low wages. The effect of this short-term focus of major institutions is to undervalue investment in non-physical assets such as workforce skills upgrading.

Part IV proposes a specific set of reforms to lift the level and quality of skill formation in Australia. These reforms focus on the enterprise, the roles of government, employer associations and the individual. Also discussed is the reform of the apprenticeship system and the need for learning networks. The conclusion summarises the main findings presented in the paper and highlights the choice facing enterprises and governments between pursuing a systematic high skill strategy or an ad hoc low skill approach.

Part 1: The Evidence Of Low Level Intermediate Skills

Several research projects undertaken by the author in the last five years have produced findings that suggest that quality of the skill formation process in Australia is seriously deficient. The projects have included three assessments of aspects of structured entry-level training (Curtain 1993, Allen Consulting Group 1994 and Gonczi et al 1995); three surveys of enterprise approaches to training (Curtain and Taylor 1991, The Allen Consulting Group 1994b and RIAP 1994); a study of the skill formation strategies of small, high-tech exporters (Curtain 1995) and a national survey of the attitudes to training of employers of casual workers. Reference is also made to the enterprise training arrangements in the APEC countries of Japan Canada, Taiwan, Malaysia and the Philippines (RIAP 1994).

Part I also presents supporting data from the ABS Employer Training Practices Survey to confirm the picture presented of poor employer training practices. Data are presented on the low demand for high level skills in Australia and an outline of the factors likely to cause this trend to continue.

1.1 Deficiencies in entry level training

The flaws in Australian approach to forming intermediate skills derive from the lack of attention in the training arrangements to the nature and quality of on-the-job training for apprentices and trainees. The primary focus of the apprenticeship and traineeship systems has been on regulating the employment of juniors. Off-the-job training requirements imposed on employers have often been viewed by unions merely as a means of limiting the potential for youth exploitation. Little interest in most cases has been shown by unions or the regulatory authorities in the nature and quality of the on-the-job available to apprentice and trainees.

1.1.1 Narrow focus of on-the-job training for apprentices & trainees

A recent research project offers scope for assessing the quality of entry-level training delivered through the apprenticeship system (Gonczi et al 1995). The study examined the presence of key competencies in on-the-job training of apprentices and trainees in five industries. The study is based on thirty enterprise case studies in five industries in Sydney: Hairdressing, Timber/Building, Hospitality, Electrical and Metals. A telephone survey of 100 supervisors of business/apprentices was also carried out. The sample was not selected randomly and reflects a bias towards employers who were nominated by industry associations as good trainers. The main findings show that there is little evidence of the presence of opportunities to acquire the eight key competencies in the on-the-job training for the apprentices and trainees surveyed. Where they are present, they are only performed at the most basic level[1].

[1] The eight key competencies are the ability to: collect, analyse and organise information; communicate ideas and information; plan and organise activities; to work with others in teams; use mathematical ideas and techniques; solve problems; use technology and to demonstrate cultural understandings.

The results of the examination of the content of on-the-job training in thirty enterprises show that in nearly two-thirds of cases, key competencies are only partly present (see Table 1)[2]. In 18 per cent of cases they are mostly present. In 16 per cent of cases, however, no key competencies can be identified. In only 2 per cent of cases is a key competency completely or manifestly present.

Table 1 Extent of presence of key competencies in on-the-job training in five industries and total (per cent).

Industries	Manifestly	Mostly	Partly	Absent	Total (N)
Hairdressing	–	20.8	68.8	10.4	100 (48)
Timber/Building	4.2	27.1	64.6	4.2	100 (48)
Hospitality	6.3	16.7	62.5	14.6	100 (48)
Electrical	–	16.7	68.8	14.5	100 (48)
Metals	–	10.4	52.1	37.5	100 (48)
Total	**2.1**	**18.3**	**63.3**	**16.3**	**100 (240)**

Derived from Gonczi et al 1995: 13-15

Other results show that in more than 90 per cent of the cases where the key competencies are identified, they are present only at the lowest of three performance levels. The results strongly suggest that the competencies imparted through structured entry-level training (apprenticeships and traineeships) are, for the most part, narrowly focused on occupational tasks. The following quote is drawn from the conclusion to our study:

Our findings show that in the vast majority of cases, the trainees/apprentices do not possess all the key competencies, and that those that they do possess, are rarely at high levels. So, if we accept the judgement of the Finn and Mayer committees that all the key competencies are needed to enable young people to function effectively in a range of social, work and educational situations, then a problem *does* exist (Gonczi et al 1995:19, emphasis in the original).

Other findings from the study also show the limited extent and generally poor quality of on-the-job training provided through the apprenticeship and traineeship system.

- Frequently, on-the-job training is not systematic, structured or documented;

[2] Partly present is defined as present in one or two subcomponents of the key competencies as spelt but in a document of the NSW Ministry of Education and Youth Affairs. Mostly present defined as up to three or more subcomponents. Manifestly present is defined as present in all the subcomponents. For example, the first key competency has the following subcomponents: locate and gather information form a range of sources relevant to the task; analyse information and organise it in a logical manner; present information for a particular purpose using a method appropriate to the needs of the audience; evaluate the quality, validity and relevance of information; and evaluate the methods used to obtain information (Gonczi 1995:6).

- The method of training is overwhelmingly informal with little systematic use of job rotation;

- Only 58 per cent of the supervisors surveyed had received any training as a trainer (mostly a short-term train-the-trainer course). But in metals and electrical entry-level training, only 30 and 45 per cent of supervisors respectively had received any training for their role of trainer (Gonczi et al 1995:15);

- Assessment is often informal and unstructured and largely ignored the use of training log books/records when these were available (Gonczi et al 1995:16).

1.1.2 Industrial relations constraints on entry level training

Other shortcomings of structured entry-level training in Australia are also evident. An assessment by the author of the pilot program to encourage innovative arrangements under the proposed new Australian Vocational Training System showed up many deficiencies. Of the 111 pilot projects funded to March 1994, only 9 per cent were enterprise-based. This is despite the fact that the AVTS was designed to be predominantly work-based. This suggests that relatively few employers were interested in trialing new entry level training arrangements.

One objective of the piloting process was to introduce new wages arrangements. However, only 4 per cent of the work-based projects approved or planned were introducing some form of competency-based wages. Few work-based pilot projects had introduced new employment conditions that departed from the conventional apprenticeship or ATS model. Industrial relations issues were identified by the Department of Employment, Education and Training as an important factor in explaining pilot project approval delays and the rejection of proposals.

At least a quarter of forty-eight work-based proposed projects were not approved due to failure to gain union approval or there were delays in granting approval due to the need to resolve industrial relations issues. Another important industrial relations constraint for the institution-based (mostly school) pilot projects was their inability to offer the three months minimum amount of work-based training to achieve the Australian Vocational Certificate. The upper limit for students to be in a workplace as students is 240 hours per year or one day per week in term time (Allen Consulting Group 1994a).

1.2 Deficiencies in enterprise skill formation: survey evidence

The survey results reported below show that many enterprises in Australia do not appear to have a strategic or long-term approach to training or wider skill formation issues. The populations surveyed vary from manufacturing firms in Melbourne, national large to medium sized enterprises, and case studies of small exporters using high technology.

1.2.1 Manufacturing firms in Melbourne

The first survey conducted in July 1991, was based on a representative sample of mainly small to medium sized manufacturing firms (20 to 200+ employees) in south eastern

Melbourne (n = 774, response rate 19.6 per cent). Two-thirds of the respondents employed between 20 and 200 employees (Curtain and Taylor 1991:2-3). Two-fifths (40 per cent) of respondents did not export and 45 per cent only exported 10 per cent or less of their output. Nevertheless, most companies (70 per cent) saw themselves as operating in highly competitive markets.

An interesting insight into how these firms operate is their lack of an integrated approach to change. Two-thirds of the companies had introduced at least one major change in the previous two years (eg. new technology, new ways of organising work, new products, or workforce reduction). But these changes were not linked with other supporting changes. The introduction of new technology, for example, was not strongly associated with the introduction of new forms of work organisation. Nor was it associated with the development of new products or services.

This compares with large-scale surveys of American firms which show that there is a positive relationship between "bundles" of HR innovative practices and various enterprise performance measures (cited in MacDuffie 1995:200). A study of sixty-two automobile assembly plants worldwide shows a close link between productivity and human resource practices. The study proves that plants that integrate human resource practices with a production/business strategy outperform, in both production and quality outcomes, plants using more traditional mass production systems (MacDuffie 1995:218).

In the Australian survey, most companies (83 per cent) had a business or corporate plan but less than half (47 per cent) had a written personnel or human resource strategy. A little less than half the respondents (46 per cent) admitted that they spent less than 1.1 per cent of their payroll on training. This meant that they, therefore, did not meet their obligations at that time under the Training Guarantee. Another quarter of the sample spent less than 2.1 per cent of their payroll on training. Only 15 per cent spent between 2 and 3 per cent of their payroll on training (Curtain and Taylor 1991: 5-6).

Multivariate analysis was used to identify the determinants of a range of attitudes. These included attitudes towards quality, importance of having a clear business strategy, and the effective use of human resource management (HRM) to stay competitive. The purpose was to see the extent to which firms are pursuing an underlying strategy, what the components of that strategy might be and what role training plays in an enterprise strategy (Curtain and Taylor 1991: 17-19).

The multivariate analysis showed the absence of any link between positive attitudes towards quality, perceived importance of having a business strategy and the effective use of HRM and a range of supporting actions and behaviour. The evidence showed that most of the small and medium sized companies surveyed lacked an integrated enterprise strategy and the presence of a narrow operational approach to training. There was an association between a belief in the importance of having a clear strategy to operate effectively in the marketplace and believing that an essential element in staying competitive was the effective use of human resources, including training (beta=0.58). There was, however, no association with a range of other characteristics such as a firm's recent experience with different types of change, market conditions, belief in the importance of R & D or even a strongly felt need for workforce training.

We concluded:

> The lack of statistical connection between attitudes towards key issues within a firm such as planning, quality, and the need for training strongly suggests that there is no underlying strategy being held by employers to link the various elements of business strategy and HRM. In other words, there is an over-reliance on rhetoric (Curtain and Taylor 1991:21).

1.2.2 National survey of enterprise approaches to skill formation

The second survey carried out in March-April 1994 produced similar results. The survey was part of a review of the National Training Reform Agenda by the Allen Consulting Group (ACG 1994). That survey was drawn from a national population of enterprises provided by mainly industry associations. Enterprises were selected in many cases from their involvement in training and the implementation of the National Training Reform Agenda.

The sample was stratified by size, industry sector and state. The response rate was 47 per cent for a total of 350 firms contacted. The median enterprise size surveyed was 500 employees. Although the sample was not randomly chosen, it is regarded as representative of large and medium sized firms with a bias towards those firms that had undertaken some activity involving the training reforms. The average current expenditure on training was 4.0 per cent of payroll, above the overall average of 2.9 per cent for public and private enterprises recorded in 1990 (ABS 1991).

Enterprises were asked to rate the current skill levels of their workforce compared with their ideal requirements. Only about half the respondents rated the skills of their front line operators and sales workers as close to ideal (5 to 7 on a 7-point scale). Few enterprises (5 per cent or less) gave top rating for the skill levels of any of their occupational groups. Nevertheless, more than 90 per cent of enterprises claimed that both management and workforce skills were important to their competitiveness.

Despite the acknowledged importance of skills to their competitiveness, few firms had in place a skill formation strategy that linked the reward system to skills acquisition in some way. Only a third of the respondents said that there was normally a reward (a pay increment or prospect of promotion) if an employee completed a training course. Only half of the enterprises surveyed offer regularly substantial training for entry-level recruits or all new employees at any level. These results suggest that there is a gap between expectation and performance. The respondents showed widespread dissatisfaction with the skill levels of front line workers. However, the expenditure of the respondent enterprises on training was only a little above the national average. It is, however, a long way from the 8 per cent or more of payroll per annum that could be expected from best practice firms (Allen Consulting Group 1994:111).

A multivariate analysis was conducted to identify the extent of association between a set of enterprise characteristics defined as best practice and a range of attitudes and practices concerning skill formation and training. Best practice was defined from the responses on a seven-point scale showing a strong market focus and a high level of importance accorded to management and workforce skills. A third of the enterprises surveyed scored above the

median on both factors and, therefore, for the purposes of the analysis are defined as best practice. Organisations with only a strong market focus *or* a high skill focus (but not both) accounted for 39 per cent of respondents. Enterprises with *neither* a strong market focus *nor* a high skills focus accounted for 28 per cent of respondents (Allen Consulting Group 1994:114).

The multivariate analysis showed that *best practice* enterprises, defined as having both a market focus and a skill focus, are associated with the following attitudes or behaviour (strength of the statistical relationship is shown in brackets):

- believing that innovation and technology are important (strong);
- believing that quality is important (moderate);
- considering training based on competencies as important (moderate);
- using competency-based training (CBT) in their enterprise (weak);
- providing training for all new employees (weak);
- seeing as important to have public certification and Australia-wide recognition of training (weak); and
- higher sales revenues (weak).

The lack, however, of a statistical association between training and other factors generally considered closely linked to best practice (such as "believing innovation and technology is important and believing quality is important") is the most significant finding. The multivariate analysis shows that training is not yet seen by many enterprises as a key element in a strategy to achieve best practice. This result is consistent with the findings above for the random sample of small to medium sized manufacturing firms in Melbourne.

This conclusion about the lack of an enterprise strategic focus for training is reinforced by other results from the same survey. The single most important factor in explaining current training expenditure by enterprises was training expenditure in 1989. In other words, present training expenditure by the enterprises surveyed is not strongly associated with any of the other factors canvassed in the survey as important to competitiveness. This suggests that the strongest influence on present training expenditure is past practice rather than best practice. The most important determinant of training in the enterprise appears to be precedence rather than future strategy.

These results are in strong contrast to a recent analysis of a representative sample of US enterprises with fifty or more employees (Osterman 1994). That survey showed that there was about 35 per cent of private sector establishments using two or more forms of flexible work organisation. The American survey identified a set of innovative HRM practices that underwrite the adoption of flexible work systems. These include innovative pay schemes, extensive training and efforts to generate greater workforce commitment (Osterman 1994:186). What is different with the Australian survey results is the absence of strong

associations between good performance and innovative HRM practices including skills upgrading through the provision of opportunities for training.

1.2.3 A survey of Australia's largest firms on employer-sponsored training

The third survey was conducted as part of a six-country study under the auspices of the Asia Pacific Economic Cooperation Forum (APEC). The survey was conducted in January 1994 by the Research Institute for Asia and the Pacific (RIAP) at the University of Sydney. They sent a total of 1,010 questionnaires to Australia's largest private sector enterprises or their subsidiary companies. The response rate was only 17 per cent. Despite the prestige of the institution carrying out the survey, this response can be taken as an indicator of the lack of interest of the largest enterprises in the topic. Thus the results are not representative but may be taken to reflect those large enterprises in Australia more likely to be concerned with training issues than the non-respondents.

The median employment size of the enterprise surveyed is 743 with a range of 9 to 50,000 employees. Manufacturing firms accounted for 32 per cent of responses, 14 per cent came from the finance sector and 8 per cent came from the general services sector. The median annual sales revenues of the enterprises surveyed was $220 million.

The most important corporate priority now and in five years time identified by the Australian respondents was quality improvement. For manufacturing firms, the major present corporate priority is decreasing cost, followed by quality improvement. These priorities were reversed for non-manufacturing firms. The most pressing personnel issues identified are personnel restructuring and reward systems. Shortages of skilled labour are seen as an additional pressing personnel issue for the manufacturing firms surveyed.

Given these priorities, it could be assumed that training would be a major focus of the enterprises. A multivariate analysis was conducted to assess the relative importance of training to the enterprise. Four explanatory models were developed. The first model looked at the organisational determinants of the more successful firms in terms of the ratio of staff members to sales revenue. The latter variable was used as an indicator of efficiency or operational leanness.

The results show that only two variables are highly correlated with the ratio of staff to sales revenue. These are:

- the proportion of firms with foreign ownership and the
- total number of trades workers employed

These results suggest that on the basis of sales revenue produced per employee, the higher the level of foreign ownership, the leaner an enterprise's operations are. This could be partly due to the relative absence of manufacturing facilities for some foreign owned firms and their more direct reliance on mainly sales and marketing functions. On the other hand, the high level of trades workers associated operational leanness suggests that manufacturing firms are also increasingly achieving a high degree of efficiency in their operations under the pressure

of international markets. It is significant that a range of other factors such as training are not related to achieving a more efficient or lean enterprise.

The second model looked at the determinants of another measure of enterprise efficiency or operational leanness in the form of the ratio of sales revenue to payroll. The results show that several variables are statistically significant in their relationship to the dependent variable. The significant variables are: an increasing number of sales and marketing staff, a decline in the total number of training days, a decrease in the use of external trainers, a decline in importance of in-house skill certification systems and the increasing importance of job rotation.

These results suggest that the leaner firms are putting their resources into generating more sales and taking on more marketing personnel. At the same time the same enterprises are cutting back on the number of days devoted to training and the use of external consultants or contractors to deliver training. There is also evidence of a move away from elaborate internal training programs that give internal recognition of the skills acquired. There is evidence that lean enterprises are giving greater weight to job rotation as an important training and development activity.

The third model looked at the determinants of the ratio of total training days to total staff. The variables that are statistically significant are:

- a decreasing per capita training budget (net of inflation) over the past two years and
- increasing line management involvement seen as a critical challenge.

The results suggest that the firms with many training days per staff member are tending to reduce their training effort. On the other hand, firms with fewer training days per employee than the average are increasing their training effort. The other result suggests that firms with an increasing involvement for their line management to improve their organisation are more likely to have a higher level of training. The importance of these two variables and the lack of association with strategic factors suggests a strong but narrow operational focus to training.

The fourth model focused on the ratio of total training days to sales revenue as the dependent variable. Only two variables are statistically significant:

- an increase in the number of staff in services
- an increase in the training budget.

The absence of an association between this key dependent variable and other factors associated with best practice shows that many of Australia's largest enterprises do not have an integrated strategy. The expenditure of many large enterprises on training is largely a product of past decisions on training expenditure. It is unrelated to the general direction the enterprise is pursuing.

On the other hand, enterprises that demonstrate better performance in terms of higher sales revenue per employee are likely to tailor their training to meet their needs more closely.

This is done by reducing, in favour of the less formal on-the-job training achieved through job rotation, the time spent on training, the use of external trainers and formal in-house training. The overriding impression to be gained from the above analysis of enterprises and training is their narrow operational focus. This conclusion is consistent with that of a study of the factors affecting the demand for enterprise training (Smith et al 1995). That study, based on thirty enterprise case studies, concluded that "...an important finding from the cases is that training is primarily an operational not a strategic issue in enterprises" (Smith et al 1995: iv).

The three sets of survey results discussed above produce a consistent finding albeit in the negative. The multivariate analysis shows that there is little evidence that a representative cross section of Australian enterprises are aware of the link between skill formation practices and high performance. This is in contrast to enterprises operating at the leading edge of the highly competitive, world car industry (MacDuffie 1994).

1.2.4 Skill formation in small, high tech enterprises

A study conducted by the author of small to medium-sized firms in Melbourne that are significant exporters and users of knowledge workers focused on their skill formation practices, policies and needs. The study was commissioned by the Dusseldorp Skills Forum. Its purpose was to explore ways in which public policy can be directed to lifting the skills-related constraints faced by these enterprises (Curtain 1995).

The main findings of the study (based on twelve case studies) are that many, small, high-tech exporters have reached a plateau in terms of their capacity to grow and expand. None of the enterprises studied have made a successful transition from an ad hoc, craft mode of product development to an organisational structure that is capable of further expansion and consolidation. One aspect of the failure to implement new systems is the general absence of sophisticated human resource policies. This is despite the widespread importance that these enterprises gave to the role of R & D and their dependence on highly qualified knowledge workers.

The major skills formation strategy employed by small firms heavily reliant on knowledge workers is finding and retaining people with the right technical and social skills. On-the-job learning and in-house skills development are the most significant modes of skills acquisition once recruitment takes place. But a major shortcoming identified by the case studies is the lack of a longer-term human resource strategy beyond a concern with recruiting people with the "right skills". The lack of a systematic approach to on-the-job training is the most visible expression of the ad hoc, informal nature of the operational approach to skills acquisition of most of the enterprises studied.

The capacity to devolve work to more appropriate, intermediate skills was absent in several cases. The low salary cost of graduate engineers compared to overseas salaries had resulted in their widespread recruitment, often regardless of whether their skills were actually needed. The danger with this pattern of skill usage is that young engineers soon become frustrated by the lack of opportunity to move into new, more challenging areas. The study suggests that the absence of a career path from technician to research engineer is likely to be a major stumbling block for high tech enterprises in Australia.

1.3 Other national survey data on enterprises' limited approach to training

The above survey and case study results are confirmed by other national official data collected on the limited attention given to training within the enterprise. The results of the ABS *Employer Training Practices Survey 1994* show that:

- only 32 per cent of Australian employers report that they provided some formal training for their employees during the twelve month period ending February 1994;
- 18 per cent of employers who provide formal training said that they had not attempted to find out the needs of their employees;
- only 30 per cent of employers (and 54 per cent of large employers with 100 or more employees) use formal methods "most often" to find out the training needs of at least some of their employees. Small employers rely more often entirely on informal methods;
- the mining industry was the only industry where more employers reported using formal than informal methods to find out training needs. The construction industry had the highest proportion (33 per cent) of employers who reported that they did not find out the training needs of their employees.
- informal methods are mostly used to determine training needs for 41 per cent of large employers;
- only 64 per cent of large employers in the private sector have a training plan;
- only 38 per cent of large employers have a full time qualified trainer or trainers;
- only 70 per cent of large employers offer formal training for all occupational groups including labourers and plant operators;
- as few as 17 per cent of large employers have a training plan to cover all employees;
- only 45 per cent of large employers have had a training plan in place for three years more;
- only 15 per cent of employers with 50 per cent or more of their workforce who are casual workers provided training to these workers.

1.4 The lack of demand for high level intermediate skills in Australia

Other aggregate data for the economy as a whole suggest that low skill jobs predominate. The factors behind the growth in low skill jobs are likely to grow in importance in the future. Aggregate data show that while the so-called higher level occupations have grown, the proportion of low skill jobs have also kept pace. Over a 9-year period between November 1986 (the earliest point at which detailed data are available) and November 1994, professionals increased their numbers from 861,600 to 1,097,200, a rise of 22 per cent.

Managers and administrators have gone from 761,000 to 897,100, a rise of 15 per cent. Para-professionals including technicians increased from 409,700 to 460,400 or 11 per cent. On the other hand, tradepersons have only increased their numbers by 23,200 or 2 per cent (ABS 1986 and 1994, tables 18 and 52).

However, low skill jobs have also increased significantly over this period. The numbers of salespersons and personal service workers have increased from 979,600 to 1,311,600, an increase of 25 per cent. Labourers and related workers have increased from 1,116,000 to 1,202,000, an increase of 7 per cent (ABS 1986 and 1994, tables 18 and 52). This suggests a continuing strong demand by employers in Australia for jobs with lower skill levels.

These aggregate data, however, are too crude to make any sustainable claims about the relative importance of different skills levels. However, recent work by Leo Maglen and Chandra Shah (1995) provide some refined broad occupational categories with reference to skill levels using the schema developed by Reich 1991.

Reich's three broad skill categories are "symbolic analysts", "in-person service workers" and "routine production workers". "The first occupational grouping of symbolic analysts with skills described as "advanced, state of the art, cutting edge..." only represented 20 per cent of the employed workforce in November 1993. In-person service workers with variable technical skill levels but with a common requirement for interpersonal skills represented 34 per cent of the workforce. Routine production workers with skill requirements that range from low to high technical craft skills accounted for 46 per cent of the workforce (Maglen 1994, Table 2).

In-person service workers accounted for 54 per cent of the increase in total employment between 1986 and 1993, mostly part-time and casual work. Symbolic analysts accounted for 33 per cent and routine production workers accounted for only 13 per cent of the increase in total employment (Maglen 1994, Table 4).

Within these three broad occupational categories, further subgroupings based on skill have been distinguished. Maglen has recently presented data that show high *annual* growth rates between 1986 and 1995 for the large workforce categories of "In-person Service - Elementary workers" (3.04 per cent) and "In-person Service - Intermediate workers" (2.88 per cent) (Maglen 1996:18). "Routine Production workers - High Skill" had a negative growth over this period (-0.28 per cent) while "Routine Production workers - Low Skill" had a low positive growth rate of 0.20 per cent (Maglen 1996:18). On the other hand, the smaller groups of Symbolic Analysts and In-Person Professional workers had high growth rates (between 3.36 and 2.64 respectively). The high skill Symbolic Analysts - Technical Support only grew by 0.88 per cent (Maglen 1996:18).

These data suggest that the demand for high skill levels in Australia (for both symbolic analysts and routine production work) have been limited to a minority share of the total recent growth in jobs. Although the growth rate over the whole period of Symbolic Analyst jobs at 33 per cent is high, it is from a low base. The high growth rates were recorded for the lower skilled, In-Person Service workers. This trend in favour of a greater growth for In-Person Service employment is likely to continue as the primary and secondary industry sectors continue to decline in their employment share.

Several factors are likely to contribute to this continuing demand for lower skilled jobs in Australia in the future. There is the growth in small business, self employment and part time work. Small business (1-19 employees) employment in Australia has grown from just more than 2 million in 1983-84 to just less than 2.6 million in 1991-92. This represents an increase of 27 per cent or an average annual growth of 3 per cent. In contrast, employment in larger businesses over the same period grew by only 16 per cent or 1.9 per cent per annum (ABS 1993:15). Between 1989-90 and 1991-92, while total employment fell by 5.4 per cent, jobs in small business increased by 1 per cent.

Another aspect of the emerging structure of employment that is likely to influence the nature of the demand for skill is the growth in self-employment. The proportion who are self-employed of total persons employed was 12.4 per cent in 1990 slightly above the average for OECD countries (ABS 1993:164). However, the average annual growth rate of self-employment for all industries in Australia except mining and finance/business services outstripped the OECD average. The industries where the self-employed are concentrated are in wholesale, retail trade, restaurants and hotels (33 per cent), construction (22 per cent) and community, social & personal services (15 per cent). Many of these jobs are at the lower end of the skills spectrum. Production & related workers, transport equipment operators and labourers accounted for 45 per cent of the jobs held by the self-employed.

Part-time work has expanded greatly in the last decade. However, part-time workers are concentrated in a narrow range of occupations of generally low skill status. Cleaners had the highest proportion (63 per cent) of people working part time. Other occupations with more than 50 per cent working part time in 1993 were miscellaneous salespersons (including bar attendants, waiters and waitresses), tellers, cashiers, ticket sales persons and sales assistants (ABS 1993:105). The largest proportions of part-time workers are to be found in the low skill occupations of sales assistants and miscellaneous labourers (including storemen, kitchen hands and hospital ward helpers) at fourteen and 9 per cent respectively (ABS 1993:105).

1.5 Summary of the evidence

The above data about enterprises in Australia, both large and small, show a picture of arrangements for intermediate skill formation that in absolute terms appear restricted and lacking in strategic focus. The absence of comparative data on enterprise skill formation practices makes it difficult to assess the how Australia performs in relative terms compared with its competitors in the world economy. However, it is the contention of this paper that if data were available to make such a comparison, Australia would rank below its major competitors in terms of the quality and quantity of intermediate skills it is capable of producing. The reasons for this claim are spelt out below in Part 2.

The above wide-ranging evidence of the approaches to training in Australian enterprises suggests a narrow focus on its operational rather than strategic role. This narrow focus means training and skills upgrading is often divorced from an integrated "bundle" or strategy at the enterprise level that links skills upgrading to other changes in the workplace. This narrow focus on the short-term costs and benefits of training by enterprises is unlikely to foster the high-level, intermediate skills that are the basis of German and Japanese export sectors. ABS aggregate data showed that many small and large enterprises in Australia fail to approach their training requirements on a systematic basis. This means that there is little

use of comprehensive training plans and formal methods to identify training needs. Only one industry sector in Australia, the entirely export-directed mining industry, reported more use by enterprises of formal rather than informal methods for identifying the training needs of its employees.

The above evidence strongly suggests that most enterprises in Australia have a low skill/low quality focus. The following section outlines the major factors that contribute to the demand for low skills/low quality in Australia.

Part II: Factors Explaining the Low Demand For High Quality, Intermediate Skills

Three structural features of the Australian economy can be identified that contribute to a low skills/low quality outcome. These are: the small size of firms, the comparatively low level of technology used by manufacturing industry and a short-term planning focus of most enterprises. Related to these factors are the attitudes of managers, employees and unions that have been shaped by these structural factors. Unions, organised on an industry or occupational basis, tend to focus on standardised conditions and a lowest common denominator approach. This is demonstrated in the way the apprenticeship has operated historically in Australia.

None of these factors alone may explain the deficiencies identified in Part I but together they constitute what Finegold and Soskice (1988), in their analysis of the failure of training in Britain, have called a low skills/low quality equilibrium. This refers to a self-perpetuating set of conditions in which each of the key players identified above are seeking to maximise the benefits as they see them. This occurs within an institutional setting that reinforces the value of seeking short-term gains. The net result is a low level of demand for high quality skills. As Finegold and Soskice point out, piecemeal reforms within this framework are unlikely to have any lasting effort. Changes in one direction or institutional setting, unless complemented by other significant changes, are likely to result in only small, long-term shifts in the equilibrium position (Finegold and Soskice 1988:22).

2.1 Small Enterprises, low skills and low propensity to train

Let me now consider in more detail some of these factors. One factor that contributes to a low demand for high level intermediate skills is enterprise size. Wooden and Baker (1996) in their report on Small and Medium Sizes Enterprises and Vocational Education and Training, found that there is a greater concentration of jobs with low skill requirements in the small business sector (firms with fewer than 20 employees). They conclude, therefore, that many jobs in small firms do not require much formal or structured training.

Data from the Employer Training Practices Survey shows that small employers are least likely to invest in training or to provide on-the-job training. Only 18 per cent of all small employers provided training over the three-month reference period July-September 1993. The Employer Training Practices Survey 1994 noted that only 25 per cent of small business provided training in the twelve months to February 1994. The survey also found that only 13 per cent of small employers provided in-house training with only 5 per cent reporting that they had a training plan. Only 4 per cent of small employers said that they had used formal training needs analysis to find out the training needs of their workforce.

Based on US, German and Japanese evidence, it is not size *per se* that helps to explain the propensity of an enterprise to train. Small and medium sized enterprises in Germany and Japan have good training records (Soskice 1994 and Curtain, Boyles and Matsushige 1995). US data, in particular, shows that it is the existence of the complex systems for managing workflow that explains better the propensity to train. However, it is also likely that larger enterprises will have developed these systems (Knoke and Kalleberg 1994).

2.2 More Small Enterprises in Australia than Major Industrialised Economies

Comparative aggregate data suggest that Australian enterprises are, on average, much smaller than enterprises in the major industrial economies. The estimated share of total employment in enterprises with less than 100 employees in Australia in 1989-90 stood at 63 per cent. This was much higher than the USA (48 per cent) France (48 per cent) and Germany (55 per cent). However, the share was similar to the UK (60 per cent) but less than Japan (76 per cent) and Italy (75 per cent) (BIE 1992: Table 2.2).

There are no official data available on the employment size of the top 1000 companies in Australia relative to the distributions in other countries. However, a comparative study of employer-sponsored training in six APEC countries, cited above, showed that the average employment size of Australia's largest private sector enterprises is much smaller than the largest private sector enterprises in Japan and Canada. Australian enterprises are on a par with Taiwanese enterprises but larger than the largest enterprises in Malaysia and the Philippines. Some 69 per cent of Australian private sector enterprises in the survey have more than 500 employees compared with 96 per cent for Japan and 84 per cent for Canada and 67 per cent for Taiwan. Malaysia and the Philippines have 49 and 42 per cent of their largest enterprises with more than 500 employees (RIAP 1995: 3)

The Australian economy cannot, therefore, be categorised as in the same category as or similar to the "big firm" economies of the US, Japan, Germany and France[3]. Australia does not have a large firm sector on the scale of the USA, Europe and Japan. Australia's high proportion of small firm employment appears to reflect the small domestic market that most economic activity has focussed on until recently. If most employment is in small enterprises and there are relatively few large enterprises in Australia, this has major implications for understanding the nature of the skill formation process. The apprenticeship/traineeship system, for example, is likely to be dominated by small employers, with little use of apprenticeships as an entry point to the large firm sector, as it is in Germany (Soskice 1994).

2.3 Australia's Low Technology and Low Skill Economy

Medium or high level technology and the sophisticated skills needed to operate that technology are associated with high value-added manufacturing. However, Australia's manufacturing base is small and has been classified by the OECD as mainly low technology linked to the resource sector. A comparison of the thirteen major OECD countries, based on 1989 data, shows that Australia, along with Norway and Denmark, has the lowest share of GDP derived from manufacturing activities. On the other hand, two of the wealthiest economies in the world, Germany and Japan, have the largest portion of their GDP coming from manufacturing. Australia's manufacturing share of GDP in 1989 was 16.1 per cent, down from 24.3 per cent in 1970. Germany's share stood at 31.2 per cent in 1989 (down from 38.4 per cent in 1970) and manufacturing's share in Japan was 28.9 per cent in 1989 (down from 36 per cent in 1970) (OECD 1994:136)

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[3] The high proportion of small firms in Japan reflects the importance of subcontractors in their symbiotic relationship to the large firms. The high proportion of employment in small firms in Italy also reflects a "dual" economic structure as in Japan

According to a recent analysis of manufacturing indicators in the major OECD countries, Australia, has an above average rating for the presence of "low technology" industries. These low-technology industries are defined as food, beverages & tobacco; textiles, apparel & leather; wood & paper products; petroleum refineries and products; non metallic mineral products; iron & steel; metal products and shipbuilding & repair[4]. Australia's industry structure has similar characteristics to the other natural resource-dependent economies of Canada and the Nordic countries except Sweden (OECD 1994:16).

This group of natural resource-dependent countries had significant low technology sectors: wood products in Canada and Denmark, paper products in Finland and Sweden and basic metals in Norway. In Australia's case, the low technology food processing group of industries had the highest export market share in both 1970 and 1990. This trend is parallelled in the distribution of manufacturing research & development investment. The share of R & D devoted to the low technology group of industries is on average twice as big in Australia compared with the low technology sectors of France, Germany, Italy, the United Kingdom or the United States (OECD 1994:16).

Other data show that over time Australia, along with Canada and the Nordic countries, continues to specialise in natural resource-oriented industries that comprise the low technology group. The only two medium technology industries in Australia mentioned as showing significant growth in recent years are motor vehicles and nonferrous metal products (OECD 1994:16). This in contrast to the other major industrialised OECD countries that have specialised in the high and medium technology industries (OECD 1994:16).

One prominent economist, Professor Sachs of Harvard University, has argued recently that a large natural resource base can actually get in the way of developing a strong manufacturing base and the basis for strong economic growth. Sachs argues that by exporting its resources, a country's currency appreciates, making its manufactured products too expensive to be competitive on the world market (AFR. 10 September, 1996: 8). This reliance of the economy on resource exports can create a national economic policy environment that undervalues the contribution that manufacturing and high level skills can potentially make.

The demand for high level skills has historically been low in Australia because of this reliance on low technology industries associated with the low level processing of primary commodities. The OECD data show that the jobs in high technology industries tend to be better paid compared with medium and low technology industries. This reflects the higher value-added output of these industries (OECD 1994:23). Australia's manufacturing sector has an above average concentration of low wage industries. The OECD has defined these as: food, beverages & tobacco; textiles, apparel & leather; wood products and furniture; electrical machines excluding communication equipment; other transport equipment and other manufacturing.

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[4] High technology industries are defined as: drugs & medicine, electrical machines including communication equipment; radio, TV & communication equipment; aircraft, professional goods, and office & commuting equipment. Medium technology industries are defined as: chemicals excluding drugs, rubber & plastics products; non ferrous metals; non electrical machinery; other transport machinery; motor vehicles; and other manufacturing.

Australia in 1988 had 36 per cent of its manufacturing in these low wage industries. This compares with a weighted average of 29 per cent in this grouping for the twelve major OECD industrialised countries (OECD 1994:148). Australian industry, apart from a small number of sectors, appears to be firmly located within an industry structure that is based on low skills and low wages[5].

2.4 Enterprise short-time planning horizons

Another contributing factor to the creation and maintenance of a low skills equilibrium in Australia is the lack of longer term planning in human resources in most larger Australian enterprises. A representative survey of human resource management practices was conducted in late 1993 in nearly 800 organisations (two-thirds in the 1000-2,000 employee size range). It showed that over the two years to late 1993, most Australian enterprises were undergoing major changes in terms of both direction and structure[6].

The survey showed that 58 per cent of organisations had changed their basic mission statement. Consistent with this, 62 per cent of organisations had made significant changes to their goals and objectives while 72 per cent had changed strategies. Significant changes in organisational structure also accompanied these changes in direction for nearly two-thirds of the organisation surveyed (Collins 1994:29).

According to the national survey of enterprises, several human resources activities had increased in emphasis over the previous three years to the survey. However, these changes mostly took place within a short-term planning horizon as shown by the following results. Most enterprises (41 per cent) formulate their corporate and/or business plans annually, with a third (34 per cent) having a 2 to 3 year planning time horizon. The survey results showed that less emphasis is now placed on long-term planning compared with four years previously. In 1989, 37 per cent of organisations planned on a four to five-year time horizon. In late 1993, this proportion had fallen to 23 per cent (Collins 1994:5). There was also a decrease in the proportion of firms between 1989 and 1993 that undertook formal workforce planning (from 37 to 28 per cent). There was also an increase in the proportion with no workforce planning (32 per cent in 1993 compared with 22 per cent in 1989).

2.5 Poor relative performance of australian enterprises

Other survey results point to the relative poor performance of Australian enterprises. A 1993 survey comparing 1,400 manufacturing sites in Australia and New Zealand showed that New Zealand manufacturers are more likely to be classified as leaders in best practice than Australian manufacturers (Australian Manufacturing Council 1994:22). The average score for Australian manufacturers in terms of a set of best practice criteria was lower than the New Zealand enterprises surveyed. The average scores of manufacturers in both countries were lower than a group fourteen international companies. A fifth of the

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[5] Maglen (1994:6) cites another OECD study which shows that between 1974 and 1986, Australia among all OECD countries had the smallest shifts out of low growth industries into high growth industries.

[6] The survey was carried out by the Australian Graduate School of Management, University of New South Wales.

enterprises surveyed were assigned to a "leaders" or "laggers" group based on their scores on best practice criteria. The survey results showed that 49 per cent of the Australian leaders had organisation-wide training and development process, including career path planning. Only 13 per cent of the Australian enterprises in the laggers group could claim the same processes were in place.

A barrier to enterprise improvement was the lack of skilled people. This was nominated as a barrier by 45 per cent of the leading manufacturers and 53 per cent of the laggers in Australia. This problem was far more significant to Australian (and New Zealand) enterprises compared with only 15 per cent of the group of international companies (AMC 1994:71). The site visits revealed that, despite the high levels of unemployment, many managers complained about the difficulty of recruiting particular categories of skilled and professional workers (AMC 1994:34). In particular, there was an emerging and largely unsatisfied demand for a new type of worker with an appropriate mix of technical and socio-organisational skills (AMC 1994:34).

These data suggest the absence of well developed internal labour markets for most Australian manufacturers. Without the capacity to foster in-house the type of skills required to respond to the new forms of work organisation and other changes, it is no surprise that many managers report widespread skill shortages of the skills they need.

2.6 Deficiencies in how the apprenticeship system in Australia operates

A major factor in the perpetuation of a low skills cycle is the focus of the apprenticeship system on regulating employment, with minor regard given to the quality of training received on-the-job. The primary status of apprentices in industrial awards means that a training apprentice or trainee in Australia is an employee first, with training considerations subordinate to employee status. State legislation governing the operation of training contracts is subordinate to the employment contractual arrangements specified in federal and state industrial awards. This is in sharp contrast to Germany where there is a well-defined legal distinction between normal employment arrangements and apprenticeship as a system of training. In Germany the apprentice has the status of trainee and is not an employee (Curtain 1993).

The German apprenticeship system is based on a training agreement that details not only the training to be provided. It also specifies the terms and conditions under which the trainee is to work in the workplace. Training contracts governing apprenticeships are sharply distinguished in both legal and industrial practice from employment contracts (Marsden and Ryan 1991:258). The emphasis is on the participant's status as a trainee. This means that the employer is required to provide systematic on-the-job training as their primary responsibility to the trainee.

An important element in the maintenance of this emphasis on training is the role and responsibilities of the on-the-job instructor of apprentices. According to a German Government description of 'Vocational Training in the Dual System':

> The success or failure of company training [for apprentices] lies in the technical skills and teaching qualities of the instructors (Federal Republic of Germany 1992:23).

It is this emphasis on the quality of on-the-job training and the role of the workplace supervisor/trainer that is at the core of the German apprenticeship system. This is in contrast to the situation in Australia where the employment contract comes first in law and practice with status as a trainee a secondary consideration. One important indication of the primacy of the employment relationship in Australia for apprentices is their wage rates. The wage rates of apprentices are little different compared with the junior rates for young workers receiving no training. The absence of the equivalent role of "meister" for apprentice training in Australia suggests that little systematic attention is given to the quality of on-the-job training. The lack of attention to the type and extent of training on-the-job means that it is not well integrated with formal, off-the-job training delivered through TAFE.

2.7 Trapped in a low skills/low quality cycle

Part II of this paper has argued that Australia is trapped within a low skills/low quality cycle. The small size on average of Australian enterprises and the low technology base of Australian manufacturing was the result of limited value-added downstream processing of primary commodities and narrow import substitution orientation fostered by high levels of protection. The short term planning horizon and under performance of many firms in the Australian economy has impeded the development of a focus on high level intermediate skills. This legacy has shaped Australia's skill formation arrangements. The focus on the production of low-level, standardised skills through the apprenticeship system laid the basis for occupational labour markets. Employers in the past supported this method of generic skills acquisition because their need for high level, enterprise specific skills was minimal. Little or no attention was paid to the skill needs of operational blue or white collar workers.

The causes of this low skills/low quality cycle cannot be attributed to any one stakeholder. Employers, government, unions, individual workers and training providers are each acting rationally within the existing institutional arrangements. However, these institutional arrangements are overwhelmingly focused on seeking short-term returns. Porter (1992) has highlighted this characteristic of the Anglo-American economies in an article entitled "Capital Disadvantage: America's failing capital investment system." Based on a major research project at the Harvard Business School, Porter and his team concluded that the American system of supplying capital creates a divergence of interests among shareholders, corporations and their managers. This divergence of interests impedes the flow of capital to those corporate investments that offer the greatest payoffs. Porter also argues that the American system fails to align the interests of individual investors and corporations with those of the economy and the nation as a whole.

Porter sees the Anglo-American system for allocating investment capital as having many strengths: efficiency, flexibility, responsiveness, and high rates of corporate profitability. It does not, however, direct capital effectively within the economy to those companies that can deploy it most productively for investment projects. As a result many American companies invest too little, particularly in those intangible assets and capabilities required for competitiveness. These include R & D, employee training and skills development, information systems, organisational development and supplier relations. At the same time, many other companies waste capital on investments that have limited financial or social rewards - for example, unrelated acquisitions (Porter 1992:66).

Porter's analysis criticises America's (and by implication other economies similarly structured such as Australia's) capital markets for failing to optimise long-term private investment and social returns. This in contrast to the Japanese and German systems which are able to focus on the long-term corporate position. They achieve this through an ownership structure and governance process that incorporates the interests of employees, suppliers, customers and the local community. In this way the Japanese and German systems can capture the social benefits that private investment can create (Porter 1992:75).

This paper argued in Part Two that most production in Australia compared with the major industrialised economies has been organised around relatively standardised products using low levels of technology with low skill requirements. In addition, according to Porter's analysis, financial institutions promote short-term horizons and rewards and corporate management have operated within this framework. The ease with which workers can be made redundant in Australia has also contributed greatly to a climate of short-term economic decision making. This climate discourages employees from undertaking long-term investment in upgrading their skills.

The result is that only a few sectors of the economy have well developed training structures. Only a few industries in Australia have well developed systems of certification, good training facilities and adequate information and sources of advice to companies. Two manufacturing industries that stand out are motor vehicle manufacturing and food processing. The absence of proper assessment procedures in most industries confirms the lack of adequate training structures. Most employer associations are poorly positioned to take the initiative to act as a broker to promote industry-owned collective training arrangements. Unions are seldom equipped to provide good training services to their members.

Part III discusses ways to move outside the low skills cycle. It outlines proposed reforms focussed on the role of key players in the skill formation process. These players include the enterprise, government, employers' associations, unions and individuals.

Part III: Policy Response: Reforms Needed to Move Into a High Skills Cycle

Five main key players or stakeholders influence the nature of the demand for skill in terms of both quantity and quality. These five players are enterprises, governments, employer associations, individual employees and training providers. Looking at each of these agents in turn, a range of factors can be identified to promote a high skill/high quality cycle in Australia.

A range of changes are needed to enable Australian enterprises to develop long term skill formation strategies. The following specific measures are proposed because they are a departure from current practice. However, they are not likely to have a major impact if they are only carried out in isolation. A comprehensive set of changes are needed to ensure that enterprises do operate within a longer term planning horizon. These are discussed in Porter (1992).

3.1 Enterprise changes to improve skills formation

Clearly, action is needed to encourage enterprises to take the initiative to develop the skills of their employees. The knowledge base of an enterprise needs to be considered as an asset for accounting purposes. The rate of return for investment in skills needs to be calculated alongside the rate of return for forms of capital investment. A specific enterprise measure, therefore, with particular relevance to skills formation is to improve the quality of information used in decision making within and beyond the enterprise about corporate investment.

Porter is critical of the US system of management because of its reliance on quantitative capital budgeting processes (Porter 1992:81). Porter proposes that corporate management transform financial control systems into position-based control systems. The latter is based on the company's extended balance sheet as its income statement. The extended balance should include assets that constitute its competitive position such as market share, customer satisfaction, asset quality such as its skills base as well as asset quantity.

A recent European Community White Paper on Education and Training entitled *Teaching and Learning: Towards the Learning Society* recommends treating capital investment and investment in training on an equal basis. According to the White Paper, this requires reforming accounting and fiscal approaches to training expenditure. The White Paper points out that labour in accounting terms is not considered as an asset for the enterprise. It is regarded an operating cost and is included as such in the company balance sheet in the form of remuneration and taxes. The know-how and skills acquired by employees during the course of their duties need to be seen as adding value to the enterprise. If this were the case, the expenditure on training and salaries during the training period could be considered as depreciable intangible fixed assets and transferred accordingly on the balance sheet (EC 1995:48)

Financial institutions such as superannuation fund managers could indicate their interest having information on intangible assets such as the knowledge base of the company and supporting indicators such as the extent of labour turnover for key employee categories.

This could be done by encouraging Australian publicly listed companies to provide information in their annual reports on a number of human resource indicators. The Investors in People standard discussed below provides a list of 23 generic indicators.

Other information on company plans to maintain and enhance that investment such as employee share ownership to encourage retention of key employees should also be included in annual reports. In this way the financial system, through its investment decisions based on assessment of performance in this area, can send a signal to enterprises that its short term performance is not the only criterion used to make the decision to invest or maintain investment. Similarly, enterprises can also send signals to the financial sector that their long term potential for growth through their accumulated knowledge base should also assessed in addition to their short term performance.

Another means of promoting a more systematic approach to the use of human resources within the enterprise is to commit to and attain the Investors in People standard. Investors in People is an accreditation scheme established in Australia in early 1996. It is a program to recognise companies with a public award for good practice human resource policies and practice. The main attraction of gaining accreditation is for enterprises to use the name and logo in recruitment advertisements and other public advertising. The intention is to attract and retain employees who are keen to work for a progressive employer.

Investors in People Australia, an independent company, under the auspices of the Australian Institute of Management, runs the program. Enterprises work with external advisers over a period of five to thirty days to help them to develop an action plan to meet the requirements of the standard and so to achieve accreditation. The final phase is an external assessment or audit of the enterprise's performance against the key principles and indicators. This process can take between three days (the minimum possible) and thirty days (the maximum).

Investors in People consists of a set of 23 indicators based on four standards or key principles:

- *Commitment* to develop all employees to achieve business goals and targets;
- *Reviewing* regularly training and development needs in the context of the goals of the business;
- Taking relevant *action* to meet training and development needs throughout people's employment;
- *Evaluating* outcomes of training and development for individuals and the organisation as a basis for continuous improvement (emphasis in the original).

The key elements of the Program are that:

- the business makes a public commitment at a senior level to develop all employees to achieve business objectives using a written but flexible plan specifying how training and development needs will be assessed and met. This plan is to be communicated to

employees showing how they can contribute to success, involving employee representatives and unions where appropriate.

- the business also undertakes to review regularly the training and development needs of its employees through its business planning and make links where appropriate to publicly recognised qualifications.

- the business, in addition, commits itself to training its employees throughout their career.

- the commitment by the employer to training entails an evaluation of the investment in training at all levels against specific goals and targets to improve its future effectiveness

The Program is based on a similar successful program in the UK operating since 1990. Vetting can be a demanding process with many firms having their plans referred for modification. Checks are carried out annually to ensure that stated standards are achieved and further goals established for improvement. The result is said to be a continual "ratcheting up" of standards in the areas of training and employee development (Elias 1995: 112).

UK evidence shows that organisations meet the Investors in People standard have higher profits, lower staff turnover, better morale, lower wastage rates and more repeat business (UK Dept. for Education and Employment, Press Release 115/96, 3 April 1996).

3.1.1 Fostering learning networks

There is a more general problem of the poor state of relations between enterprises in Australia, lowering the chances of cooperative action to realise the benefits of the collective provision of skills. Many Australian enterprises operate in a low-trust environment. This applies to not only industrial relations within the enterprise but also between enterprises. High trust underpins the skill formation process in Japan. This applies to both how skills are acquired within the enterprise and in the transfer of skilled personnel between enterprises (Curtain 1994, Fukuyama 1995:161-193).

High trust conditions also underpin the apprenticeship system in Germany. All employers feel a strong degree of social pressure to take care of their employees by giving them the skills to make them employable. Companies that fail to do this face ostracism. They are not able to have the same kind of trust relationship with their workers as companies that provide opportunities for skills acquisition. This high trust environment is reinforced by legislation that confers on Works Councils the power to establish rules to limit the ability of employers to hire and fire workers at will. This restricts the ability of free riders to 'poach' the skilled labour of other companies (Fukuyama 1995:239).

Part One presented evidence of the inability of small, high tech enterprises to take a long-term view of their human capital needs. This reflects the difficulties of operating in an environment where market and institutional failures adversely affect human capital formation. It also reflects the lack of collective bodies to help firms to develop arrangements suited to their needs. This has been done successfully in the USA through more than 400 enterprise 'incubators' and the use of structured work placements for tertiary students.

The benefits of extended structured work placements are the following: access to talents and skills that may be in short supply within the founding team of the company; opportunity to try out potential future employees; supervision by someone else (independent coordinator with input from academic staff); access to academic staff who may have relevant expertise; and offers valuable assistance at favourable rates. In the case of the 'incubators' for new enterprises, it helps to develop a pool of entrepreneurial talent (Rice and Matthews 1995).

Similar arrangements have been developed in Australia through employer initiative. These arrangements now operate for the retail and commerce sector in the form of the TRAC program where now 1,300 workplaces have taken on secondary students since 1989. The Commonwealth Government has endorsed this strong bottom-up approach to linking schools to workplaces by its allocations to the Australian Studentship Traineeship Foundation.

Similar arrangements are, however, absent for many enterprises operating at the high skill end of the labour market. Some tertiary institutions operate "cooperative education" programs but these are small in scale and are focused on large enterprises. These arrangements do not extend, for example, to small, high tech enterprises. There is clearly scope for enterprises, tertiary institutions and government to establish learning networks. These networks can share the cost of funding a coordinator to develop collective arrangements such as structured work placements for tertiary and TAFE students. Cooperative arrangements within and between workplaces will help to promote the collective provision of higher level skills for the economy.

3.2 The role of government

The task of government is to respond to evidence of market failure in the provision of training. The benchmark is the level of performance in training provision provided by enterprises in the export sectors of the major industrialised countries. There are major benefits for the economy of encouraging longer term skill formation strategies at the enterprise level. However, because these benefits may not accrue to individual firms in the time frame of an expected return on investment, government funding is necessary. This applies particularly to smaller firms that may be operating with tight margins.

The role of government is to promote longer term skill formation strategies for enterprises and individuals. The role of government is expressed well in the UK Government's commitment through 'Developing Skills for a Successful Future' to improve the UK's international competitiveness by raising standards and attainment levels in education and training to world class levels through ensuring that:

- all employers invest in employee development to achieve business success.
- all individuals have access to education and training opportunities, leading to recognised qualifications, which meet their needs and aspirations.
- all education and training develops self-reliance, flexibility and breadth, in particular through fostering competence in core skills.

These are backed by a series of specific targets for the year 2000 and information on current position. These are under the heading of Foundation Learning:

- By age 19, 85 per cent of young people to achieve five GCSEs at grade C or above, an Intermediate GNVQ or an NVQ level 2.

  Current position: 63 per cent of young people up to and including age 19 have achieved either five GCSEs at Grades A-C, an NVQ/Scottish Vocational Qualification (SVQ) level 2 or vocational equivalent.

- 75 per cent of young people to achieve level 2 competence in communication, numeracy and IT by age 19; and 35 per cent to achieve level 3 competence in these core skills by age 21.

- By age 21, 60 per cent of young people to achieve two GCE A levels, an Advanced GNVQ or an NVQ level 3.

  Current position: 41 per cent of young people up to and including age 21, have achieved either two GCE A levels, an NVQ/SVQ level 3 or vocational equivalent.

Under the heading of lifetime learning, the following targets have been set:

- 60 per cent of the workforce to be qualified to NVQ level 3, Advanced GNVQ or two GCE A level standard.

  Current position: 40 per cent of the workforce qualified to at least two GCE A levels, an NVQ/SVQ level 3, its vocational equivalent or a higher qualification.

- 30 per cent of the workforce to have a vocational, professional, management or academic qualification at NVQ level 4 or above.

- 70 per cent of all organisations employing 200 or more employees, and 35 per cent of those employing 50 or more, to be recognised as Investors in People.

  Current position: 514 organisations with 200 or more employees have achieved recognition as Investors in People. This represents 6 per cent of the total number of medium to larger organisations and accounts for about 3 per cent of the total workforce in organisations of all sizes.

Specific initiatives governments could take include promotion of the Investors in People standard. The Investors in People standard in Australia needs to be publicly endorsed by government and actively promoted by employer associations and other bodies with high credibility with employers. Government funding is needed to ensure that the program is promoted to small business and assistance is offered with helping small employers to meet the standard. Employer associations should be funded to meet a target based on the number of commitments to the Investors in People standard. These enterprise commitments should be supported by an action plan to work towards the standard. The target for an employer

association should be specified in terms of an agreed number of commitments in particular employment sectors or for particular employer size bands. Unless there are specific bodies charged with responsibility for meeting specific targets, the initiative may be confined to large firms that are already close to the standard.

The take up rate for participation in the UK program has been described as remarkable (Elias 1995:112). By April 1996, just over 20, 000 companies had applied for the award, but only just over 4,000 of these had been fully approved. More than 27 per cent of the workforce is now employed in organisations that have committed themselves to the scheme. The UK Government claims that 1,400 small firms have achieved Investors in People status. There is a range of training initiatives run by the UK Department for Education and Employment to help small firms attain the standard (UK Dept. for Education and Employment, Press Release 115/96, 3 April 1996).

As in the UK, Government should set specific targets for particular sectors and size of enterprises and offer funding to employer associations to achieve those targets. As mentioned above, the UK Government has committed itself to achieving by the year 2000, 70 per cent of all organisations employing 200 or more employees, and 35 per cent of those employing 50 or more, to be recognised as Investors in People.

Government needs to provide funding through vehicles that have strong credibility with the focus of any effort to lift skills formation practices. One obvious vehicle, discussed below, is the representative organisations funded by employers. This will also encourage employer associations and other enterprise representative bodies take on greater responsibility in addressing the market failure in training.

One way to do this is for Government to provide to a body separately incorporated, controlled and managed to act as purchaser the framework, guidelines, accounting procedures and a range of support services as well as the bulk of the funds. The UK experience with Training and Enterprise Councils and a top-down delegation of purchasing authority to the intermediary shows that there is a strong tendency by Government to maintain strict controls through detailed performance targets and earmarking funds for specific purposes. These controls reflect several factors that may have implications for the operation of similar arrangements in Australia. The short-term preoccupation of the political process with the problem of unemployment has overridden the more general goal of TECs to upgrade the skills of the workforce as a whole. Most Government funds have been made available to TECs on the basis that they help the unemployed.

TECs have been unable to establish themselves as genuine brokers in the training market because they have remained divorced from the broad range of employers, offering a narrow range of services associated with training for the unemployed and heavily dependent on government for funds and direction in how they should operate. TECs often do not have the power nor expertise to adapt government program funding to meet market demand (Bennett *et al* 1993).

There is an alternative to the top-down delegation of purchasing authority to an intermediary operating within detailed guidelines, as in the UK. This involves the allocation of funds by government to an intermediary that is not subject to the same constraints imposed by central authorities. In this way, the local level body is able to play better the role of broker or

facilitator of local initiatives such as encouraging enterprises to form consortia to pool their resources and maximise their purchasing power. Public law or compulsory chambers of commerce in many European countries (most notably France and Germany) are able to promote training activities among enterprises because of their broad membership coverage and independent funding base (Bennett *et al* 1993).

The role of government in relation to a representative and capable intermediary body should be limited to broad accountability for funds allocated in place of detailed audit trails. The capacity of an intermediary body to raise its own funds for training would express in a concrete way its independence from Government. It would also reinforce its own responsibility to account for how the funds are spent. The intermediary has to be accorded greater levels of autonomy over time in how it manages public funds if it is to have the credibility with local business and the flexibility to respond to the needs of employers.

3.3 The role of employer associations

Another way to lift the commitment of employers to longer-term skill formation strategies is to involve employer associations in the design, development and administration of government-funded training. An employer association or equivalent body is in the best position to obtain the cooperation of individual enterprises. This is because they are seen to be acting in the interests of companies as a whole. Also powerful employers' associations, as in Germany, can more effectively sanction "free riders" than can government. Employer associations become powerful by distributing a range of valued services to companies one of which can be training advice. Reliance by an enterprise on an employer association for a range of diverse services gives the association potential sanctions that can be used to organise and coordinate local collective initiatives (Finegold and Soskice 1988:48).

One reason the training guarantee had such poor acceptance by enterprises in Australia is the fact that the Australian Tax Office was the collection agency. The response of employers to the levy may have been far better if it has been collected and dispersed through industry or regional employer associations or other intermediaries with a strong rapport with employers. French employer associations have the opportunity to allocate levy funds to specific projects such as structured entry-level training in a particular occupation and location or establishing a pilot program to link high school education with workplaces (OECD 1993).

In Germany, the chambers of industry and commerce create a culture with a common understanding about training needs and standards. Through regular contact among the parties concerned with local training issues, a customary understanding is reached of what margins of variation are tolerable (Marsden 1994). Local mechanisms to regulate training arrangements avert the need to provide an exhaustive definition of all the circumstances that a national body may need to be take into account in formulating standards. The same local level consensus helps the assessment process to achieve greater reliability and consistency (Wolf 1994).

Employers and unions need to play independent roles as brokers and promoters of training. A major focus of a skills formation broker should be to lift the quality of on-the-job learning. One means of doing this, for small, high tech enterprises in particular, is for independent brokers or learning networks to arrange structured work placements for tertiary and post

secondary students as part of their course. This would provide the opportunity for employers to nominate mentors or workplace trainers to receive training in how to improve existing training practices. Closer links to educational providers through offering student placements may also bring benefits to the enterprise. This could be in the form of more appropriate training based on a better understanding of the needs of the workplace (Curtain 1995).

The focus of a local training broker needs to be on activities that meet the needs of enterprises that would otherwise not be met in any other way by the market. To do this effectively, an intermediary should be owned and controlled by business so it is clearly able to act in the collective interests of business and is seen as doing so. A broker or facilitator to be truly representative of business needs to have a broad base or constituency that covers most or all of business in a particular industry sector or region. Most employer, trade or industry associations in Australia, as in the UK, have a coverage of only a small minority of eligible members.

It has been proposed by the British peak body for local Chambers of Commerce that a system of business registration be promoted by peak employer, trade and industry associations as a means of reducing red tape by enabling industry to regulate more its own activities. Local employer associations would be delegated by government the function of managing the register and advising businesses on regulatory controls (Bennett *et al.* 1993: 312). A registration scheme based on the incentive of self regulation is one way that a local employer association can achieve the representativeness and authority to speak for employers.

The main purpose of a registration system would be to identify clients as a basis for developing liaison activities and directing government funds for entry-level training, for example, to particular groups. A second benefit would be the opportunity to levy a small fee for registration that would then be available to the local employer association as a "subscription" for the provision of specified core services. This fee should be graduated by size of company and could be zero for the self-employed and micro-businesses. The local employer association could subcontract with other service providers to provide a variety of services. The approach, similar to the role performed by German Chambers of Commerce, is that of "business self-administration" (Bennett et al 1993). Business self-administration in the German case means that the Government can contract to the chambers a variety of business-related services and to hand over regulatory issues. This enables the local chambers to develop leverage on businesses to ensure compliance as well as offering a means of directly stimulating business innovation and economic growth (Bennett *et al.* 1993, p 312).

A limitation of Chambers of Commerce in Britain and public law chambers in Europe, however, is their capture by committees that are poor mechanisms for responding to the market (Bennett *et al.* 1993, p 312). The starting point for an intermediary in the training market must be meeting the needs of business, as distinct from government priorities or the interests/concerns of particular departmental bureaucracies. To do this, intermediaries need to develop a means of market testing the need for a range of local business services and the power to adapt government program funding to meet those needs.

3.4 Individuals and skill formation

One legacy of the strong industrial relations agenda that has shaped recent changes to workplace training in Australia is the negotiated provision in many enterprise agreements that employees only undertake training in the employer's time (Curtain 1994b). This provision is, in many cases, the product of a low trust industrial relations environment. This requirement unnecessarily restricts employees, especially those with little formal education, from taking more responsibility for upgrading their skills on a continuing basis. The apparent lack of interest by many adult workers in Australia (compared to Japan, for example) in upgrading their skills in their own time may also be due (in addition to factors such as cost and poor future prospects) to their poor basic educational grounding. This applies particularly to trade-qualified workers who left school at age 15 or 16.

In countries with widely acknowledged superior quality education and training systems such as Germany and Japan, workers display a strong belief in the value of continuing education. Workers in these countries invest a considerable amount of their own funds and time in acquiring further skills (for evidence about Japanese workers, see Curtain, Boils and Matsushige 1995:10-11). Ford Motor Company in the UK has agreed to match their employees' investment of time and money in any sort of education and training. The value of this arrangement to the company is to promote a climate of learning despite its specific content. No company in the automotive industry in Australia has a similar arrangement.

A recent representative sample survey conducted by the author of casual employees in the eastern states of Australia showed that 49 per cent of respondents are prepared to train at their own cost. The same proportion of casual employees also acknowledge that it is their responsibility to provide for their own training. Nearly a third of the casual employees interviewed agreed with the statement that "it is a lack of money that stops me from training" (Curtain 1996).

Borrowing by the individual to fund further skills acquisition in Australia is difficult if not impossible because banks will not lend without the security of a tangible asset. Nor is individual expenditure on training tax deductible above a certain minimal level. Individuals may also be reluctant to invest in vocational education and training because the rewards for skilled workers in a low skills/low quality economy are not high. Many existing workers do not have an educational base to go beyond the trade level to technician level skills or higher. The absence of provision for educational leave means that any workers who may wish to take leave to upgrade their skills may not be guaranteed a job to which to return. For these reasons self-financed training is often not seen as a realistic possibility. Government could support the taking of educational leave without pay with a guaranteed job to return to in the same way as maternity leave operates.

Government could also underwrite a loan program for individuals to encourage skills upgrading. Banks would administer the loans in the same way as personal loans are. Although under this arrangement the Government would be responsible to the banks for defaulted loans, the borrower would still be liable for repayment of the loan. The debt will remain until it is fully repaid. Recovery action similar to normal personal loans may be undertaken by banks on the behalf of the Government. As proof of good faith, individuals

should be required to show their commitment to training by paying upfront a set minimum amount of the course fees.

Britain has recently introduced the Career Development Loan scheme. This scheme provides loans to individuals to undertake further study that aims to advance their career. The loan covers the costs of course fees. Some 15,00 to 20,000 loan applications are accepted each year (Elias 1995:113). The UK has also introduced tax relief for vocational training providers who may then reduce the cost of training by 25 per cent for individuals. Payment is made directly by individuals who then claim the reduction from the Tax Department (Elias 1995:113). There is no reason that a similar program could not be initiated in Australia on the basis of an evaluation of the British experience.

Another related policy option is for Government to enable individual employees who wish to upgrade their skills to establish "individual training accounts". Tax credits could be given to individuals who put funds aside to invest in further skills acquisition, independently of the training provided by their employer. The tax credits could operate in the same way as tax benefits for superannuation savings function. Low-wage workers are required to save for their retirement through compulsory superannuation contributions. However, no similar mechanism of regulation and tax incentives is available for these same workers to upgrade their skills

Individuals from limited educational backgrounds could be given greater tax credits to act as an incentive for them to upgrade their skills. Tax credits could also be provided for training undertaken in skill areas for which there is a high demand. The money could be used to enable employers to undertake vocational education and training part or full time (Curtain 1986). The opportunity for individuals to use individual training accounts needs to be backed by access to career guidance information for adults including good labour market information about current job vacancies and the future areas of skill demand (Finegold & Soskice 1988:46).

3.5 Comprehensive reform of apprenticeship training

The traditional form of intermediate skills acquisition in Australia has been the apprenticeship system. The evidence presented suggests that skills imparted through its particular Australian employment-dominated variant are narrow in focus. Case study and survey evidence shows that the amount and quality of on-the-job training for apprenticeships and trainees are low on both counts. Industrial award-based constraints, reliance on small employers to provide places and the absence of trained supervisors suggests that work-based, entry-level training in its current form is unlikely to deliver the high quality skills needed. It remains to be seen how the proposed reforms in the form of the Modern Australian Apprenticeship and Traineeship System (MAATS) will address the issue of raising the quality of the training provided in the workplace, especially by small employers. Efforts to ensure that the quality of training for apprentices is high require having appropriate workplace training arrangements in place.

The lack of focus on key competencies in apprenticeship and traineeship training, highlighted above, strongly suggests that a fundamental recasting of structured, entry-level training has to take place. Competencies that only require job-specific skills for entry-level work should be rewritten to include all or most of the key competencies at performance levels beyond the

basic. Courses of study for trainees and apprentices need to be structured to provide knowledge and competence to ensure that the individual's long-term employability is enhanced.

Current practice is to focus on narrow skills to gain a low skilled job. Little attention is paid to where the trainee is going to progress to next as part of an internal or external labour market. With the next down turn in the labour market, those with low skills/low quality are likely to lose their jobs. This group is also likely to find it the hardest to obtain another job, despite their recent work experience. Narrowly focused, low quality, entry-level training locks young people into their own version of a low skills/low quality cycle or strait jacket.

The rationale for a national competency standards framework is to give people transferable skills to enhance employability. It is essential that entry-level training provide competencies that serve as building blocks for further skills acquisition. Transferable skills refer not only to lateral mobility between similar jobs but more importantly to vertical progression with the same or another employer. Simply helping an unemployed person gain a job by providing narrow training aimed at meeting an employer's immediate helps little. Training has to promote the person's capacity to acquire additional, more broadly based skills needed for future employment.

One key aspect of better arrangements for training in the workplace should be the existence of a "training supervisor" similar to a German meister or qualified technician - trainer. Compared to the "meister" in Germany, the role of the workplace supervisor in Australia has been limited. The narrower role has been limited to organising the work unit, "firefighting" and checking quality controls. The German meister, in contrast, plays a strong role in training and planning new developments. The supervisor as trainer and facilitator of employees' development opportunities should be a crucial ingredient in developing a learning culture in the workplace. Specific programs or qualifications are needed to enhance the quality of training managers and supervisors in the workplace. Reforms to apprenticeship and traineeship arrangements should include specific provision for enhancing the role of the workplace mentor for the person in training.

The reforms being implemented by the new government in the form of the Modern Australian Apprenticeship and Traineeship System (MAATS) seek to address some of the industrial relations constraints affecting the apprenticeship system. This is to be done by giving employers the opportunity to set up more appropriate training arrangements including wage levels outside existing industrial awards through Australian Workplace Industrial Relations Agreements.

It is likely that there are two types of apprenticeship arrangements operating in the Australian labour market. Larger enterprises are more likely to see the apprenticeship system as a means of recruiting young people into an internal labour market. This was certainly the case for large state owned enterprises in the past. For these apprentices, considerable front end training is often provided in the company's own training facilities before the apprentice is sent on to the job. There is also likely to be a program of job rotation to ensure apprentices have a range of relevant work experience and opportunity to exercise skills acquired in the class room.

However for smaller enterprises without internal labour markets, the apprenticeship system may be seen as a means of recruiting an inexpensive form of labour that will stay with the employer for at least the period of the indenture. There is often little or no connection between on and off-the-job training. Nor is there the opportunity to rotate between different jobs. Employers or supervisors are likely to have undertaken little or no training in their role as mentor and trainer to the apprentice.

The opportunity to develop new, more appropriate training arrangements under Australian Workplace Industrial Relations Agreements that reflect a fair trade off between the cost of providing high quality of the training by the employer and the benefit to the employee is likely to be more important to the larger enterprise. Some smaller enterprises with a need only for low skills and few resources to provide extensive on-the-job training are may see the new Australian Workplace Industrial Relations Agreements as the chance to negotiate lower wages without any compensating benefits to the apprentice. Indeed, if the reforms only concentrate on providing for lower wages, they may attract employers to provide places for the reasons unrelated to training.

However, what is more likely to happen is that few small employers are likely to want to go to the trouble of developing their own agreement focussed on entry level training. An analysis of 1820 enterprise agreements to April 1994 covering mostly larger employers was carried out by the author. The analysis showed that only 119 agreements or approximately 7 per cent of agreements referred to regulated entry level training in the form of apprenticeships or traineeships. Only 2 per cent of agreements introduced new entry-level training and less than 1 per cent sought to revise existing arrangements (1994b).

3.6 Training providers

In a low skills/low quality cycle, the nature of the demand for training from training suppliers is limited. If enterprises have little regard for the quality of the training they are willing to pay for, there is little incentive for training suppliers to provide high quality training. Without a focus on outcomes, providers are likely to turn inwards to adopt quality systems that are merely concerned with inputs and efficiency output measures. The lack of a split between purchaser and provider for publicly funded training and the lack of opportunity for employers to be directly involved in the allocation of resources has produced a training system that is often regarded by employers as inflexible and costly.

The profile funding method for allocating public monies to TAFE through State Training Authorities can be criticised for its lack of responsiveness to the end user of the system. The narrow emphasis placed on achieving cost efficiencies rather than cost effectiveness through funding based on average or benchmark costs is also another shortcoming. There may also be a limited incentive for service providers to pay attention to quality issues unless the client has some power to influence decisions about how funds are allocated.

In an attempt to respond to this deficiency, the UK Further Education Funding Council requires colleges to send it data to allow publication of *comparative* performance tables. The data on student achievement include students' intended and actual career destinations. Similar data are to be collected at a State level in Australia through the National Centre for Vocational Education and Research and State TAFE systems, but it is understood that they are not to be disaggregated to the college level. In addition, the UK Further Education

Funding Council requires each college to produce a college charter. The purpose of the charter is to enable the college to commit itself publicly to the delivery of services to certain specified levels of responsiveness, timeliness and quality.

The use of performance indicators in the USA in state-based vocational education and training programs is now established. It is a condition of federal government funding under the Carl D. Perkins Vocational and Applied Technology Education Act of 1990. A study of the measures used in four states in 1992 showed the following responses (NCRVE 1995). All four states adopted measures of academic skills, specific occupational competencies and labour market outcomes. Other measures cover general job or work skills and program retention and/or completion (NCRVE 1995:14).

In one state, the regional accreditation body requires post secondary institutions to include outcome measures as a condition of gaining and keeping accreditation. The state proposes an "institutional guarantee" in which post-secondary institutions guarantee to employers that students have acquired certain occupational skills. Federal legislation, yet to be implemented, requires post-secondary institutions to collect and publish data on the completion or graduation rate of certificate or degree-seeking full time students.

Part IV: Conclusion

Evidence presented in this paper shows the low level and poor quality of the intermediate skills generated by the apprenticeship and traineeship arrangements. Evidence based on representative enterprise survey data and aggregate data from official statistics shows that many enterprises in Australia fail to take a long-term, strategic approach to human resources planning and development. Part II of this paper has argued that Australia is trapped within a low skills/low quality cycle. Unions are caught in a short term cycle of attempting to bid up wages through broad industry bargaining power. Individuals seek to lift their return to skill by moving between employers. Government, due to the pressure of electoral politics, are often more concerned with training the unemployed in narrow and specific work skills to gain access to entry-level jobs.

The low technology/low skill base of Australian manufacturing was the result of limited value-added downstream processing of primary commodities and narrow import substitution orientation fostered by high levels of protection. This legacy has shaped Australia's skill formation arrangements. The focus on the production of low-level, standardised skills through the apprenticeship system laid the basis for occupational labour markets. Employers in the past supported this method of generic skills acquisition because their need for high level, enterprise specific skills was minimal.

According to a 1996 McKinsey study of the Australia economy (What Ails Australia?), the "low" aspirations of management to change and lack of innovation are associated with the poor relative performance of many Australian enterprises and lack of attention to their longer term skill needs (Lewis, McCann, McLean and Zitzewitiz 1996). Compared with the US economy, most Australian industry sectors (except construction) are said to lack effective middle management and a culture that encourages innovation.

> At present, Australia has pockets of firms with high management aspirations that are achieving impressive improvements in performance through aggressive best-practice initiatives. To lift the nation's overall productivity, many more firms must set ambitious targets and strive for world class performance (Lewis, McCann, McLean and Zitzewitiz 1996: 96).

The prognosis of this paper is not confined to Australia. The Commission on the Skills of the American Workforce (1990) entitled *America's Choice: High Skills or Low Wages!* concluded that many US enterprises appear to be in a low-skills equilibrium: they are profitable and do not see any need to lift the skills of their under-educated workforce. In such workplaces, the Commission found that enterprise-based training is rare and is largely confined to upper level managers and professionals with production methods adapted to the low skill level of the workforce.

The above analysis is also confirmed by the report of an OECD review team on *Industry Training in Australia, Sweden and the United States:*

> Mainstream managerial values and attitudes in all three countries have tended to give more attention to short-term, financial gains than to long-term, resource planning gains. With the exception of a small number of "best practice" firms that typically invest over five per cent of the payroll in structured employee training programmes,

> most managers have viewed an investment in training as an expensive and risky way of meeting skill shortages...(Clement et al. 1993:52-54).

This difference in performance between firms has been highlighted recently by a report from Access Economics. Associated with the poor elative performance of many Australian enterprises and lack of attention to addressing their skill needs is, according to a McKinsey study of the Australia economy, the "low" aspirations of management to change. Compared with the US economy, most Australian industry sectors (except construction) are said to lack effective middle management and a culture that encourages innovation.

At present, Australia has pockets of firms with high management aspirations that are achieving impressive improvements in performance through aggressive best-practice initiatives. To lift the nation's overall productivity, many more firms must set ambitious targets and strive for world class performance (Lewis, McCann, McLean and Zitzewitiz 1996: 96).

This difference in performance between firms has been highlighted recently by a report from Access Economics. The result has been labelled a dual economy by the Australian Financial Review. While the economy grew by just over 4 per cent in financial year 1995-96, 40 per cent of the economy grew by almost 8 per cent but the other 60 per cent grew by barely more than 2 per cent. The growth sectors were mining, communications and property services (*Australian Financial Review* 8 October 1996:1). Manufacturing and the housing sector are the sectors with slow growth. The report argues that the dual economy will further develop in the future.

The economy continues to suffer from high levels of unemployment. There is also the underutilisation of people currently in work with more that half a million workers saying that they would prefer to work more hours. Wooden estimates that the total labour underutilisation rate (including unemployment, visible and invisible underemployment and hidden unemployment) stood at 16.4 per cent in September, twice the rate of official unemployment (Wooden 1996). Wooden's projections on the basis of a simple econometric model suggest that economic growth will need to be substantial before unemployment is reduced. In other words, growth at moderate levels will see unemployment remain at levels similar to the current level.

The prospect of continuing high levels of unemployment will place pressure on governments to respond at the expense of long term strategies to lift the quality of skills in the economy. Two approaches to skill formation in Australia, therefore, are likely to exist side by side. Enterprises in producing elaborately transformed products and services for export, supported by some government initiatives and the efforts by individuals to upgrade their skills, will pursue a high skill strategy. However, many enterprises, mostly located in the non tradeable goods and services sector, are likely to prefer to pursue the low skills approach, simply because their cost structure requirements do not make any other approach attractive.

The growth of small business in Australia with its low level of training and the growth in temporary, low skilled work strongly suggest that there is likely to be continuing high level of demand for low-skill jobs in the foreseeable future. There are significant sectors of the

Australian economy in which employers will continue to have minimal demands for enhanced skills and qualifications. The fact that these areas may be expanding faster than other sectors of the economy in the future has major implications for the skill formation policy of government in the face of continuing high levels of unemployment.

It may well be in the electoral interests of government (at state and federal levels) to support basic entry level training to provide easier access to low skilled work in the service sector. The major focus of training policies is, therefore, likely to be on merely increasing the interpersonal skills of those at risk of unemployment. Access to low-paid, low-skilled jobs with limited tenure is likely to be an acceptable goal of government policy if the aggregate level of unemployment is reduced. For most employers not subject to international competition, use of the external labour market to source immediate skill needs is likely to be sufficient. If the skill levels required by most industries are low, there will be little demand from employers for institutional arrangements that foster high-quality training.

On the other hand, the export-exposed sectors in manufacturing and services will increasingly be seeking workers with a good base education so that their skills that can be continuously upgraded. The challenge will be for government, employers, unions and individuals to devise ways to ensure that these high level skills are produced. This needs to be done through arrangements that are separate from or markedly different to those that have operated in Australia in the past. There is a need to promote skill formation arrangements in Australia that consciously foster high-level intermediate skills based on high-quality training alongside policies that continue to provide opportunities for the unemployed to find work of any sort.

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